Index of Claims

| Appl | ication | /Control | No. |
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Applicant(s)/Patent under Reexamination

10/083,423 Examiner

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SPANGLER, JOHN M.

Art Unit

Elda Milef

3692

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|--|--------------|-----------|----------|--------|------------|--------------|-----------|-----------------|----------|----------|--|----------|-----------------|----------|----------|-----------------|----------|----------------|----------|--------|-----------|----------|---|-------------|----------|----------|--|--------------|-------------------------------------|----------|-----------------|----------|----------|----------|
| T  | 016          |           | 4        | ٧-     | -          | Т            | Ť         | ale             |          |          |  | $\vdash$ | <del>  ''</del> | T        | ┤        | _               |          | <del>- ۲</del> | ale<br>T | _      | 1         | Τ.       | - | - "         | 31111    |          |  |              | _                                   | Jak      |                 |          |          |          |
| 1  | Final        | Original  | 12       | ₹.     |            |              |           |                 |          |          |  |          | Final           | Original |          |                 |          |                |          |        |           |          |   | Finat       | Original |          |  |              |                                     |          |                 |          |          |          |
| 2  |              |           | 3        |        | -          | +            | +         |                 | _        |          | _  | $\dashv$ |                 | !        | $\vdash$ | +               | +        | +              | +        | +-     | +         |          |   | -           |          |          |  |              |                                     |          |                 | $\dashv$ |          |          |
| 3  |              |           | Ĭ        | +      | ╁╴         | +-           | +         | $\dashv$        | $\vdash$ | $\vdash$ | $\vdash$   | $\vdash$ | -               |          | $\vdash$ | -+              | $\dashv$ | +              | +        | +      | ╁         | -        | 1 | $\vdash$    |          |          |  |              | -                                   |          | $\Box$          | $\dashv$ |          |          |
| 4  |              |           | Н        | ╁      | ╁╴         | +            | +         | $\dashv$        | $\vdash$ | H        |  | $\vdash$ | <b>-</b>        | 53       | $\vdash$ |                 | -        | -              | -+-      | ╌      | ╁         |          | ł |             |          |          | -  |              |                                     |          |                 | -        | -        | ⊣        |
| 5  |              |           | H        | ╁      | ╁╴         | ╁            | +         | $\dashv$        |          | $\vdash$ |  | $\vdash$ |                 | 54       | $\vdash$ | $\dashv$        | +        | ╅              | 十        | +      | ╁         | +        | 1 |             | 104      | -        | -  | -            | Н                                   | -        | $\vdash$        | +        | $\dashv$ | $\dashv$ |
| 6  |              |           | H        | ╁      | +          | +            | +         | -               |          | -        |  | $\vdash$ |                 |          | $\vdash$ | $\dashv$        | +        | 十              | +        | +-     | ╁         |          |   |             |          | $\vdash$ |  |              |                                     |          | Н               | -        |          |          |
| Total  |              |           | H        | +      | ╁          | +            | +         | _               |          |          | -  | Н        |                 |          | H        | $\dashv$        | +        | 十              | ╅        | +      | +         | +        | 1 |             | 106      |          | -  |              | _                                   | _        |                 | +        |          | ᅱ        |
| S  |              |           | H        | t      | ╁          | t            | +         | 一               |          | $\vdash$ |  | $\vdash$ |                 | 57       | 1        | _               | ╅        | _              | +        | ╅      | †-        | +        | 1 |             | 107      |          |  | $\vdash$     | $\vdash$                            |          | Н               | 一        | $\dashv$ | $\dashv$ |
| 9  |              |           | Ħ        | +-     | ╁          | ╈            | 7         | $\neg$          | _        |          | $\vdash$   | $\vdash$ |                 |          | $\vdash$ | $\dashv$        | +        | +              | +        | +      | ╁         | $\top$   | 1 |             |          |          |  |              |                                     |          |                 |          | $\dashv$ | ᅱ        |
| 10   1   | $\vdash$     |           | П        | ╁      | ✝          | t            | 7         |                 |          |          | H  | $\vdash$ |                 | 59       | Н        | _               | _        | _              | +        |        | †-        | $\dashv$ | 1 | $\vdash$    | 109      |          |  | _            | _                                   |          |                 |          |          |          |
| 117  |              |           | 1        | 扌      | 1          | Ť            | +         |                 |          |          |  | $\vdash$ | 1               | 60       | 1        | _               | _        | - -            | $\top$   | _      | †-        | $\neg$   | 1 |             |          |          |  |              |                                     |          |                 | $\dashv$ |          | $\dashv$ |
| 12   |              |           | -        | ┢      | t          | Ť            | 1         |                 |          |          |  | П        |                 |          |          |                 | _        | $\neg$         | +        | +      | T         |          | i |             |          |          |  |              |                                     |          |                 | $\neg$   | T        | ╗        |
| 13   |              |           |          | T      | 1          | T            | $\dashv$  |                 |          |          |  |          |                 |          | П        | $\neg$          | $\top$   | $\neg$         | $\top$   | $\top$ | T         | 丁        | 1 |             | 112      |          |  |              |                                     |          |                 | $\neg$   |          | $\neg$   |
| 14   |              |           |          | 1      | 1          | 1            | 1         |                 |          | $\Box$   |  | $\Box$   |                 |          | $\sqcap$ | $\dashv$        | $\neg$   | $\neg$         | $\top$   | 丁      | 1         | $\top$   | 1 |             | 113      |          |  |              |                                     |          | П               | $\neg$   | T        |          |
| 15   |              |           | Г        | Τ      | 1          | T            | 7         |                 |          |          |  |          |                 |          | П        | 一               | $\dashv$ | T              | T        | 十      | T         | $\top$   | 1 |             | 114      |          |  |              |                                     |          |                 |          |          |          |
| 16   |              |           | Γ        | Τ      | T          | Τ            | 7         | $\neg \uparrow$ |          |          |  | $\Box$   |                 | 65       | $\sqcap$ | $\dashv$        | $\neg$   | $\neg \vdash$  | Т        | 7      | 1         | $\top$   | 1 |             | 115      |          | П  |              |                                     |          |                 |          | T        | $\neg$   |
| 17   |              |           |          | T      | T          | T            | $\top$    |                 | •        |          |  |          |                 | 66       |          | 一               | $\top$   |                |          |        | T         | $\top$   | 1 |             | 116      |          |  |              |                                     |          |                 |          |          |          |
| 18       19       68       118       119         20       70       120       121         21       72       121       122       122         23       73       123       123       123       124         25       75       125       125       125       125       125       125       127       128       127       128       129       129       129       129       130       130       130       131       131       131       131       131       131       131       132       133       133       134       134       134       134       134       134       134       134       134       134       134       134       135       135       135       135       135       135       135       136       137       138       139       140       141       141       141       141       141       141       141       142       142       142       143   |              |           |          | $\top$ | 1          | T            | T         |                 |          |          |  |          |                 | 67       |          | $\neg$          | T        | T              | $\top$   |        | T         | 1        | 1 |             | 117      |          |  |              |                                     |          |                 |          |          |          |
| 19   |              | 18        | Γ        | Τ      |            | T            | T         |                 |          |          |  |          |                 |          |          | $\neg \uparrow$ | T        | T              | 十        |        | T         |          |   |             | 118      |          |  |              |                                     |          |                 |          | $\neg$   |          |
| 120  |              |           | Г        |        |            | Ť            |           |                 |          |          |  |          |                 | 69       | $\Box$   | $\neg$          | $\neg$   |                | $\neg$   |        | T         |          | 1 |             | 119      |          |  |              |                                     |          |                 |          |          | Ĩ        |
| 122  |              |           | Г        | 1      |            | T            |           |                 |          |          |  |          |                 | 70       | $\Box$   |                 |          | T              | T        | T      | 1         |          | 1 |             | 120      |          |  |              |                                     |          |                 |          |          |          |
| 123  |              |           | Г        | П      | Т          | T            | П         | T               |          |          |  |          |                 |          | $\Box$   | $\neg$          |          |                |          |        |           |          | ] |             | 121      |          |  |              |                                     |          |                 |          |          |          |
| 24         124           25         125           26         75           27         126           27         127           28         78           29         129           30         80           31         81           32         83           33         131           82         132           83         133           34         84           35         85           36         86           37         87           38         134           40         90           40         90           41         94           44         94           45         96           46         96           47         97           48         99           48         145           48         148           49         99   |              |           |          | Т      |            |              |           |                 |          |          |  |          |                 | 72       |          |                 |          |                |          |        |           |          | ] |             | 122      |          |  |              |                                     |          |                 |          |          |          |
| 25         125         126         126         126         126         126         127         128         127         127         128         128         128         128         128         129         129         129         129         130         130         131         131         131         131         131         132         132         132         133         133         133         133         133         133         133         133         134         134         134         134         134         134         135         135         135         135         135         136         136         137         137         138         138         138         138         138         139         140         140         141         141         141         141         141         142         142         142         142         143         144         144         144         145         145         145         145         145         145         146         147         148         148         148         149         149         149         149         149         149         149         149         149         149         149         149   |              |           |          |        |            |              |           |                 |          |          |  |          |                 | 73       |          |                 |          |                |          |        |           |          | ] |             | 123      |          |  |              |                                     |          |                 |          |          |          |
| 26         76         126         127         128         127         128         127         128         128         128         129         129         129         129         130         130         130         130         131         131         131         131         131         132         133         132         133         133         133         133         133         133         134         134         134         134         134         134         135         135         136         136         136         137         137         138         138         138         138         138         138         139         140         141         141         141         141         141         141         141         142         142         142         142         142         142         143         143         144         144         144         144         145         145         145         145         146         147         148         148         148         148         149         149         149         149         149         149         149         149         149         149         149         149         149         149  |              |           |          |        |            |              |           |                 |          |          |  |          |                 |          |          |                 |          | [_             |          |        | L         |          | ] |             | 124      |          |  |              |                                     |          |                 |          | _        |          |
| 27       28       77       127       128       129       129       129       129       130       130       130       130       131       131       131       131       131       132       132       133       133       133       133       133       133       133       133       133       133       133       134       134       134       134       134       134       135       135       135       135       135       136       136       136       136       137       137       138       138       138       138       139       140       141       141       141       141       141       142       142       142       142       142       144       144       144       144       144       144       144       144       145       145       145       145       145       146       147       147       148       149<  |              |           |          |        |            | $\perp$      |           |                 |          |          |  |          | <u> </u>        | 75       |          |                 |          |                | $\perp$  |        | 1         |          | ] |             | 125      |          |  |              |                                     |          |                 |          |          |          |
| 28       78       128         29       79       129         30       80       130         81       131         32       82       132         33       83       133         34       84       134         35       85       135         36       86       136         37       87       137         38       88       138         39       89       139         40       90       140         41       91       141         42       92       142         43       93       143         44       94       94       144         45       96       146         47       98       148         49       99       149  |              |           | L        |        | ┸          | $\perp$      |           |                 |          |          |  |          |                 |          | $\sqcup$ |                 |          |                |          |        | ↓         |          | ļ |             | 126      |          |  |              |                                     |          |                 |          | _        |          |
| 29       79       129         30       80       130         31       81       131         32       82       132         83       133       133         34       84       134         35       85       135         36       86       136         37       87       137         38       88       138         39       88       139         40       90       140         41       91       141         42       92       142         43       93       143         44       94       144         45       95       145         46       96       146         47       97       147         48       98       148         49       99       149   |              |           | L        | _      | ┸          | $\perp$      | _         | _               |          |          |  |          |                 |          |          | _               |          |                | _        |        | 4         |          | ] |             | 127      |          |  | <u> </u>     | L                                   |          |                 |          | ļ        |          |
| 30   |              |           | L        |        | 丄          | $\perp$      | _         |                 |          |          |  |          |                 | 78       |          |                 |          |                | $\perp$  |        | 1         |          | ] |             | 128      |          |  | _            | <u> </u>                            |          | Ш               | _        | _        |          |
| 31     81       32     33       34     84       35     86       37     87       38     88       39     89       40     90       41     91       42     92       43     94       44     94       45     96       46     96       47     98       48     98       49     99       148     99       149     149   |              |           | _        | 1_     | $\perp$    | $\perp$      | $\perp$   | _               |          |          |  |          |                 |          | $\sqcup$ | _               | _        | _              | $\perp$  |        | 1         | _ _      |   |             | 129      |          |  | _            | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ |          |                 |          | _        |          |
| 32     33       34     35       36     85       37     88       39     88       40     90       41     91       42     92       43     94       44     94       45     96       48     98       49     99       148     99       149     149   |              |           | L        | ↓_     | 1          | 1            | _         | _               | _        |          | _  |          | ļ               |          | $\sqcup$ | _               |          |                | $\perp$  |        | _         | _ _      |   |             | 130      |          |  |              |                                     |          |                 |          | _        |          |
| 33     83       34     84       35     85       36     86       37     87       38     88       39     89       40     90       41     91       42     92       43     93       44     94       45     95       46     96       47     97       48     98       49     99  |              |           |          | ļ      | 1          | $\perp$      | _         | _               |          |          |  |          | <u> </u>        |          | 1        | _               |          | _              | 4        |        | 4         | _ _      |   |             | 131      |          |  | ٠,           | L.                                  |          |                 | $\Box$   | _        |          |
| 34     84       35     85       36     86       37     87       38     88       39     89       40     90       41     91       42     92       43     93       44     94       45     95       46     96       47     98       48     99       49     149   |              | 32        | $\vdash$ | 1      | 1          | $\perp$      | 4         | _               |          |          | <u> </u>   | $\vdash$ | -               |          | $\vdash$ | _               | _        |                |          | +      | +         | +        | - | <u> </u>    | 132      |          | Щ  |              | -                                   |          | Ш               | $\vdash$ | _        |          |
| 35     85       36     135       37     87       38     88       39     90       41     91       42     92       43     93       44     94       45     95       46     96       47     98       48     99       49     149  | <u> </u>     |           | -        | ┼      | +          | +            | -+        | -               | <u> </u> | <u> </u> | $\vdash$   | -        | -               |          | $\vdash$ | $\dashv$        |          |                | -        | +-     | 4-        |          | - |             | 133      |          |  |              | <u> </u>                            |          | $\vdash$        | $\dashv$ | -        |          |
| 36       86       136         37       87       137         38       88       138         39       89       139         40       90       140         41       91       141         42       92       142         43       93       143         44       94       144         45       95       145         46       96       146         47       97       147         48       98       148         49       99       149  | <u> </u>     |           | $\vdash$ | +      | +          | +            | +         | $\dashv$        |          |          | ├—   | $\vdash$ |                 | 05       | $\vdash$ | $\dashv$        | $\dashv$ | -              |          | +-     | +         | +        | - | $\vdash$    | 134      | -        | $\vdash$   | <del> </del> | $\vdash$                            | -        | $\vdash$        | $\vdash$ |          |          |
| 37       87       137         38       88       138         39       89       139         40       90       140         41       91       141         42       92       142         43       93       143         44       94       144         45       95       145         46       96       146         47       97       147         48       98       148         49       99       149  |              |           | $\vdash$ | +-     | +          | +            | +         |                 | -        | <u> </u> | <u> </u>   | $\vdash$ |                 |          | $\vdash$ | $\dashv$        |          | -              | +        | +      | +         | +        | 1 | <u> </u>    |          |          | $\vdash$   |              | -                                   |          | 닏               | $\dashv$ | $\dashv$ |          |
| 38       88       138         39       90       140         41       91       141         42       92       142         43       93       143         44       94       144         45       95       145         46       96       146         47       97       147         48       98       148         49       99       149  |              |           | $\vdash$ | ╀      | +          | +            | +         |                 | <u> </u> | $\vdash$ | $\vdash$   | $\vdash$ |                 |          | $\vdash$ | $\dashv$        | +        |                | -        | +      | +-        |          | 1 | $\vdash$    | 127      |          | $\vdash$   |              | -                                   |          | $\vdash \dashv$ | -        |          |          |
| 39       89       139         40       90       140         41       91       141         42       92       142         43       93       143         44       94       144         45       95       145         46       96       146         47       97       147         48       98       148         49       99       149  |              |           | $\vdash$ | +      | +          | +            | +         | -               | $\vdash$ | $\vdash$ | $\vdash$   | H        | -               |          | ++       | -+              | -+       |                | +        | ╬      | +-        | +-       | 1 | <del></del> | 137      |          | $\vdash$   |              |                                     |          | $\vdash$        | -        | $\dashv$ |          |
| 40       90       140         41       91       141         42       92       142         43       93       143         44       94       144         45       95       145         46       96       146         47       97       147         48       98       148         49       99       149  |              |           | $\vdash$ | ╁      | +          | +            | +         |                 | <u> </u> | $\vdash$ | ├  | H        |                 |          | $\vdash$ | $\dashv$        | +        | $\dashv$       | +        | +      | +         | +        | 1 | <b></b>     | 130      |          |  | -            | $\vdash$                            |          | H               |          |          | $\dashv$ |
| 41     91       42     92       43     93       44     94       45     95       46     96       47     97       48     98       49     99  |              | 40        | -        | +      | +-         | +            | $\dashv$  | $\dashv$        |          | -        | -  | H        | -               | an       | $\vdash$ | $\dashv$        | $\dashv$ | +              | +        | +      | ╁         | +        | 1 | $\vdash$    | 140      |          | -  | -            |                                     |          |                 |          |          |          |
| 42     92       43     93       44     94       45     95       46     96       47     97       48     98       49     99  | -            | 41        | $\vdash$ | +      | +          | +            | +         |                 |          |          | <del>                                     </del> | $\vdash$ |                 |          | + +      | $\dashv$        | $\dashv$ | -              | +        | ╁      | +         |          | 1 | $\vdash$    | 141      |          | H  | -            | $\vdash$                            |          | $\vdash$        | $\vdash$ | $\dashv$ | $\dashv$ |
| 43     93       44     94       45     95       46     96       47     97       48     98       49     99  | <del> </del> |           | $\vdash$ | +      | +          | $^{+}$       | $\dashv$  | $\dashv$        | $\vdash$ | $\vdash$ | ┢  | Н        |                 |          | ╁╌┨      | $\dashv$        | $\dashv$ | $\dashv$       | +        | +      | +         | +        | 1 |             |          | $\vdash$ | <del>                                     </del> | -            |                                     | $\vdash$ | $\vdash$        | $\vdash$ | $\dashv$ | $\dashv$ |
| 44     94       45     95       46     96       47     97       48     98       49     99  | $\vdash$     |           | $\vdash$ | +      | +          | $^{+}$       | $\dashv$  | $\dashv$        |          |          | $\vdash$   | H        |                 |          | ++       | -               | $\dashv$ | $\dashv$       | +        | +      | +-        | +        | 1 |             | 143      | $\vdash$ | <del>                                     </del> |              |                                     |          | H               |          |          | $\dashv$ |
| 45     95       46     96       47     97       48     98       49     99  |              |           | $\vdash$ | +      | +          | +            | $\dashv$  | $\exists$       |          | $\vdash$ | $\vdash$   | H        |                 |          | +        | $\dashv$        | +        | $\dashv$       | +        | +      | +         | +        | i | $\vdash$    |          | H        |  |              | 1                                   | -        | H               | $\vdash$ | $\dashv$ | 一        |
| 46     96       47     97       48     98       49     148       49     99   | <b></b>      |           | $\vdash$ | $^{+}$ | +          | $^{\dagger}$ | $\dashv$  |                 | $\vdash$ | $\vdash$ | $\vdash$   | H        |                 |          | $\vdash$ | $\dashv$        | $\dashv$ | -              | +        | $\top$ | +         | +        | 1 | <b></b>     | 145      |          | $\vdash$   |              | $\vdash$                            |          | Н               | -        | $\dashv$ | $\dashv$ |
| 47   | <b></b>      | 46        | t        | t      | +-         | 十            | +         |                 | $\vdash$ | <u> </u> |  | H        |                 | 96       | $\vdash$ | $\dashv$        | $\dashv$ | $\dashv$       | +        | +      | +         | $\top$   | 1 |             |          |          | $\vdash$   |              | $\vdash$                            | _        |                 |          | 7        | $\dashv$ |
| 48 98 148 149 99 149 149 1   |              |           | T        | T      | T          | Ť            | $\forall$ |                 |          |          | T  | Н        | <b> </b>        |          | П        | $\dashv$        | $\dashv$ | _              | $\dashv$ | 1      | 1         | $\top$   | 1 |             |          |          |  | Г            |                                     |          |                 | $\dashv$ | $\neg$   | $\neg$   |
| 49 99 149 149  | <b></b>      |           | Т        | T      | T          | Ť            | 寸         |                 | Г        | Т        | Т  | $\sqcap$ |                 |          | Н        | $\neg \dagger$  | $\dashv$ | $\dashv$       | $\top$   | 十      | $\dagger$ | $\top$   | 1 |             |          |          |  |              |                                     |          | П               |          |          | $\neg$   |
| 50 1 150 150   |              | 49        | Г        | Τ      | Τ          | Ť            | 7         |                 |          |          |  |          |                 | 99       |          |                 | 1        | 1              | 1        | 7      | T         | $\neg$   | 1 |             | 149      |          |  |              |                                     |          |                 |          |          |          |
| Journal  |              | 50        |          | Τ      |            | T            |           |                 |          |          |  |          |                 | 100      |          |                 |          |                |          | $\top$ | 1         |          |   |             | 150      |          |  |              |                                     | Ľ        |                 |          |          |          |